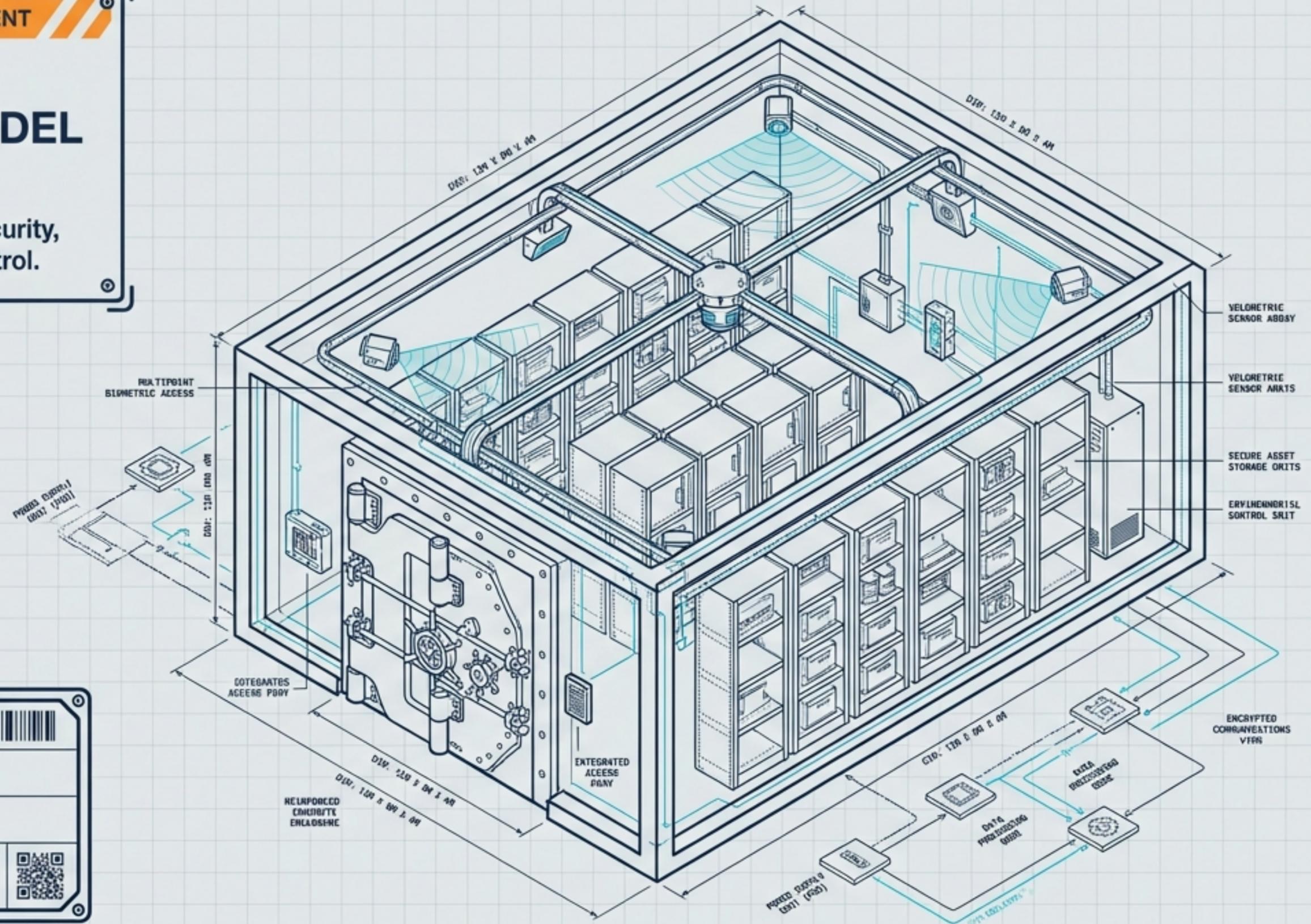# PRODUCT SSOT:
THE MUNICIPAL CITADEL SECURITY BUNDLE

Autonomous Air-Gapped Physical Security,
Volumetric Monitoring, & Access Control.

VERSION: 1.0

DATE: MARCH 13, 2026

STATUS: ACTIVE / HYBRID FULFILLMENT

OWNER: PROVADA INC. & DERETICULAR
OPERATIONS DIVISION

MULTIPOINT
BIOMETRIC ACCESS

INTEGRATED
ACCESS PANEL

REINFORCED
CONCRETE
ENCLOSURE

INTEGRATED
ACCESS PANEL

VOLUMETRIC
SENSOR ARRAY

VOLUMETRIC
SENSOR ARRAY

SECURE ASSET
STORAGE UNITS

ENVIRONMENTAL
CONTROL UNIT
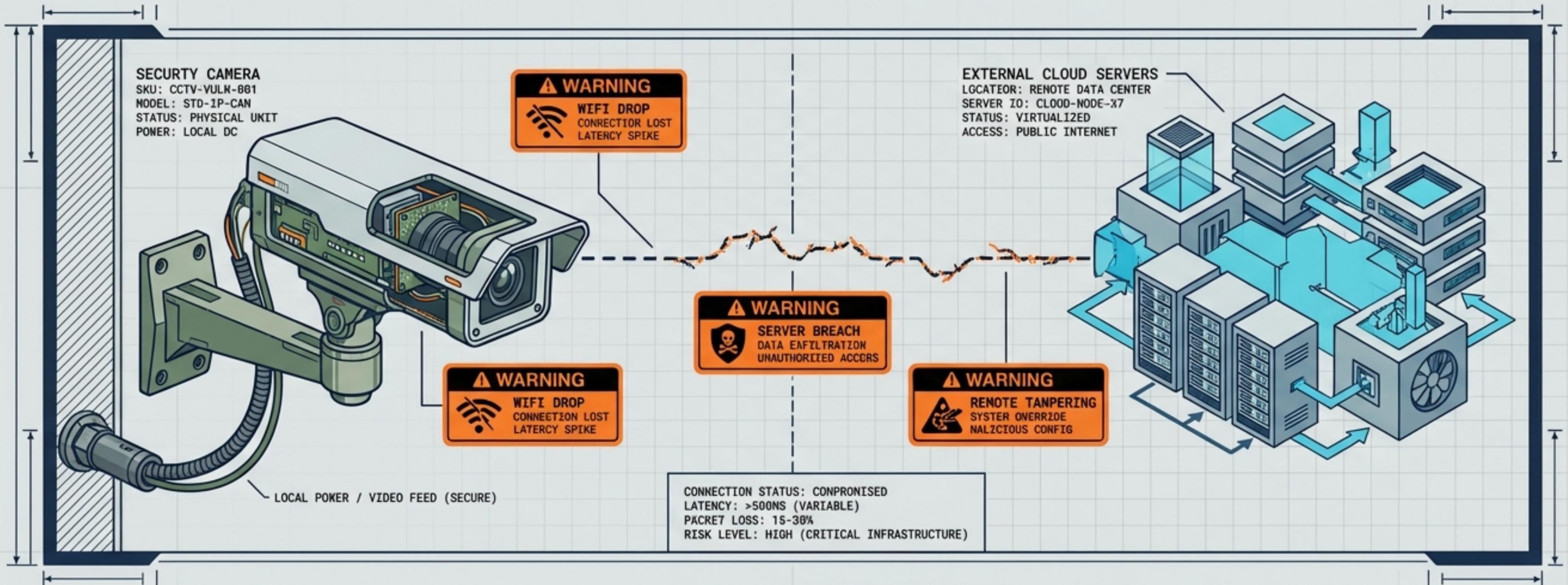
ENCRYPTED
COMMUNICATIONS
VPN

DATA
PROCESSING
UNIT

TRUE SECURITY DOESN'T LIVE IN THE CLOUD.

THE VULNERABILITY

Cloud-based CCTV systems (e.g., Verkada, Ring) create severe vulnerabilities for municipal infrastructure. They depend entirely on fragile internet connections, external corporate servers, and delayed human reactions.

THE IMPACT

For town halls, police evidence rooms, and local credit unions, relying on distant external servers for immediate physical security is an unacceptable operational risk.

SECURITY CAMERA
SKU: CCTV-VULN-001
MODEL: STD-1P-CAN
STATUS: PHYSICAL UNIT
POWER: LOCAL DC

EXTERNAL CLOUD SERVERS
LOCATION: REMOTE DATA CENTER
SERVER ID: CLOUD-NODE-X7
STATUS: VIRTUALIZED
ACCESS: PUBLIC INTERNET

⚠ **WARNING**
WIFI DROP
CONNECTION LOST
LATENCY SPIKE

⚠ **WARNING**
WIFI DROP
CONNECTION LOST
LATENCY SPIKE

⚠ **WARNING**
SERVER BREACH
DATA EXFILTRATION
UNAUTHORIZED ACCESS

⚠ **WARNING**
REMOTE TAMPERING
SYSTEM OVERRIDE
MALICIOUS CONFIG

LOCAL POWER / VIDEO FEED (SECURE)

CONNECTION STATUS: COMPROMISED
LATENCY: >500MS (VARIABLE)
PACKET LOSS: 15-30%
RISK LEVEL: HIGH (CRITICAL INFRASTRUCTURE)

CONFIDENTIAL TECHNICAL DOSSIER // PRECISION ENGINEERING BLUEPRINT // REV 1.2

DWG NO. SEC-ARCH-001

NotebookLM

THE PARADIGM SHIFT: REMOTE VS. LOCAL INTELLIGENCE

	TRADITIONAL CLOUD CCTV	MUNICIPAL CITADEL	
DATA STORAGE	Remote Corporate Server	1TB Encrypted Local NVMe	✅
DETECTION ENGINE	Standard 2D Optics	3D LiDAR + Multispectral	✅
REACTION TIME	Minutes (Human Guard)	<50 Milliseconds (Autonomous Logic)	✅
INTERNET RELIANCE	100% Required 📶 ⚠️ WARNING: LATENCY & OUTAGE RISK	100% Air-Gapped ("Island Mode")	✅

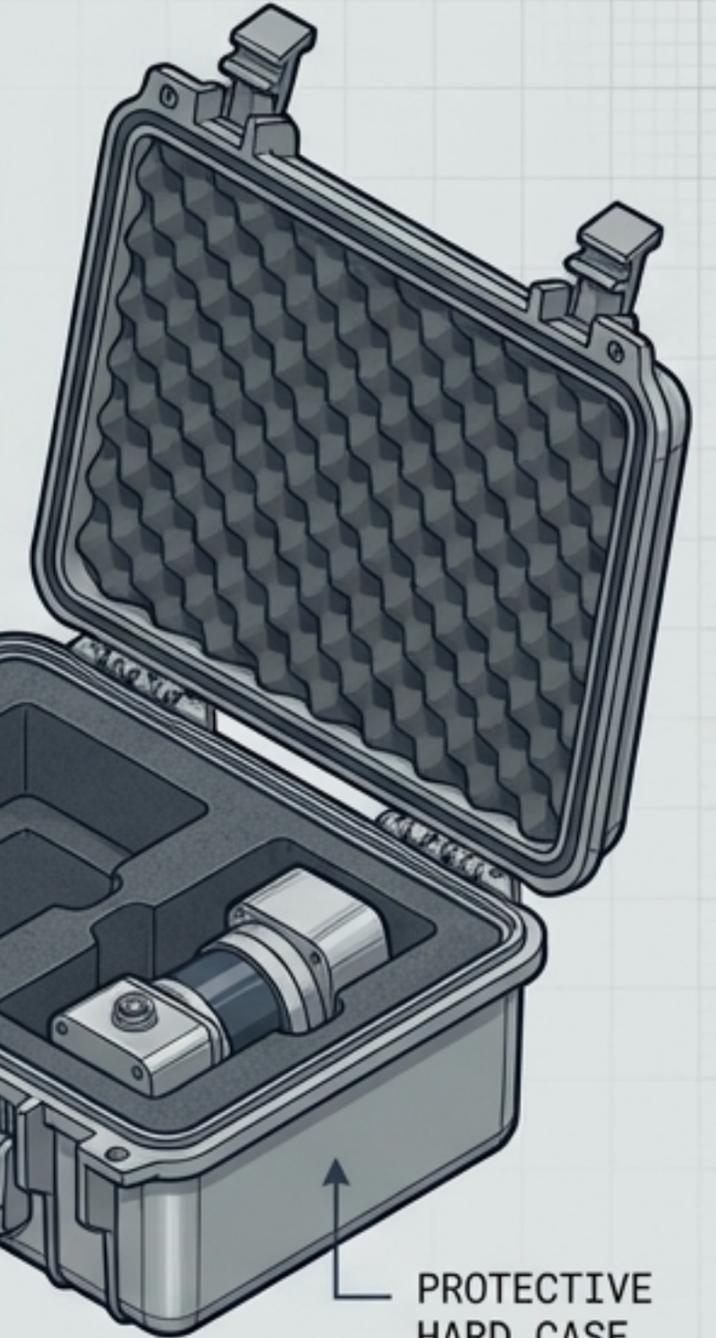# AUTONOMOUS LOCAL DEFENSE INTELLIGENCE.

The "Municipal Citadel" fuses the volumetric detection engine of the Vault Warden with the heavy-duty physical control logic of the Industrial Foreman.

It detects intrusions down to the millimeter and physically locks down assets—instantly, locally, with zero internet required.
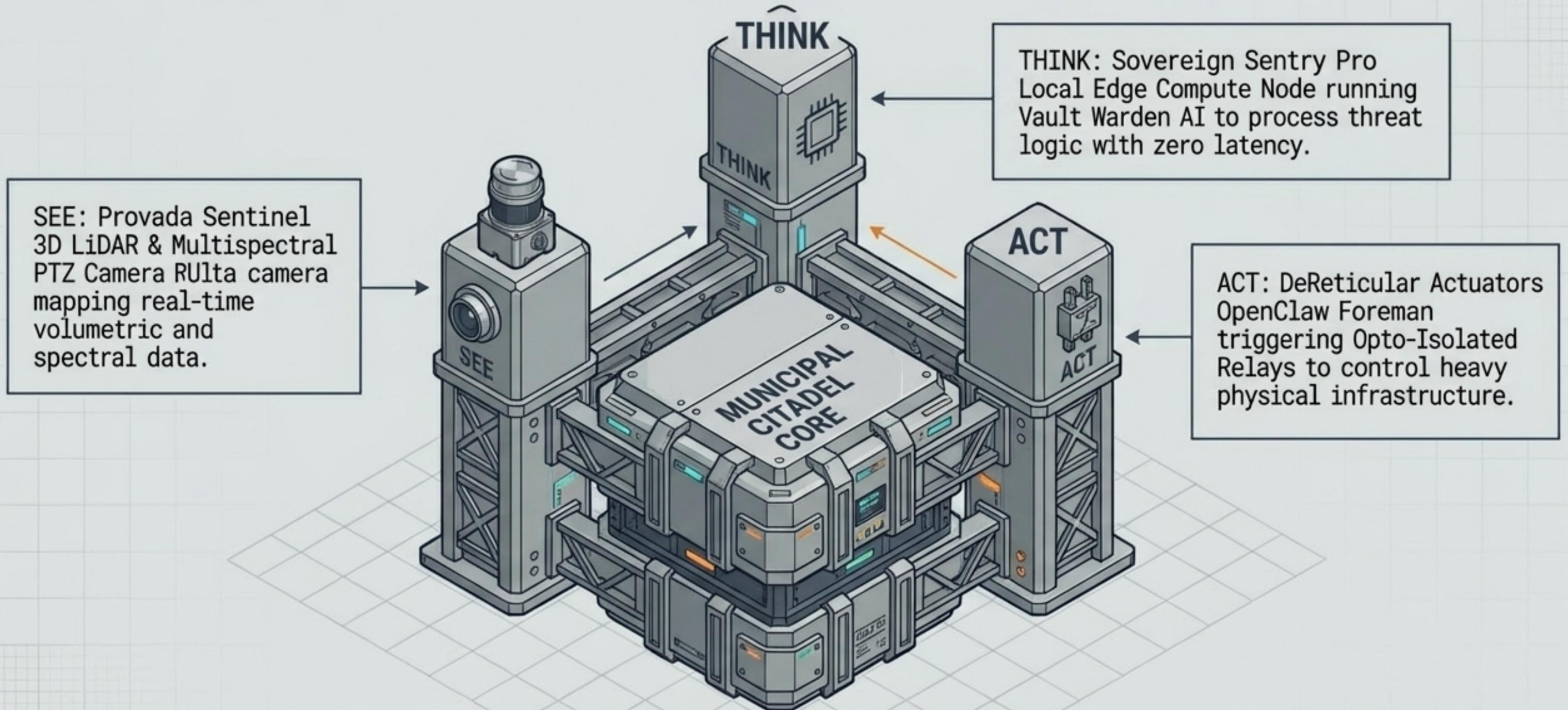
SKU:	SOV-BNDL-CITADEL
PRICE:	$2,499.00
LICENSE:	Perpetual Municipal License + Advanced Hardware Suite

SOVEREIGN SENTRY PRO EDGE SERVER
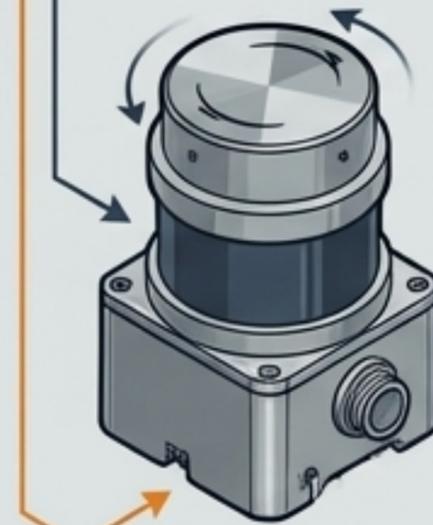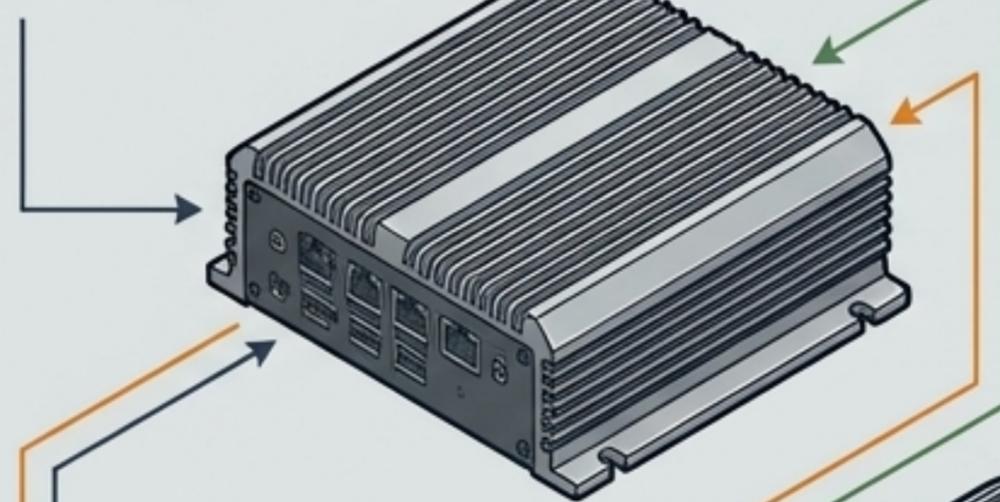
PROVADA LiDAR MODULE

PROTECTIVE HARD CASE

THE DEFENSE TRIAD: SEE, THINK, ACT.

SEE: Provada Sentinel 3D LiDAR & Multispectral PTZ Camera RUlta camera mapping real-time volumetric and spectral data.

THINK: Sovereign Sentry Pro Local Edge Compute Node running Vault Warden AI to process threat logic with zero latency.

ACT: DeReticular Actuators OpenClaw Foreman triggering Opto-Isolated Relays to control heavy physical infrastructure.

MUNICIPAL CITADEL CORE

HARDWARE BILL OF MATERIALS (BOM)

COMPUTE: Sovereign Sentry Pro

Intel i3-N305, 32GB RAM, 1TB NVMe optimized for concurrent vision AI and industrial logic.

SENSORS: Provada Sentinel Kit

3D PointPillars LiDAR Module (Ethernet) & Multispectral PTZ Camera (PoE+).

ACTUATION:
Industrial Access Control Kit

Opto-isolated 8-Channel Relay Board (USB-to-GPIO) for 12V/24V magnetic locks and sirens.

PACKAGING: Secure Deployment
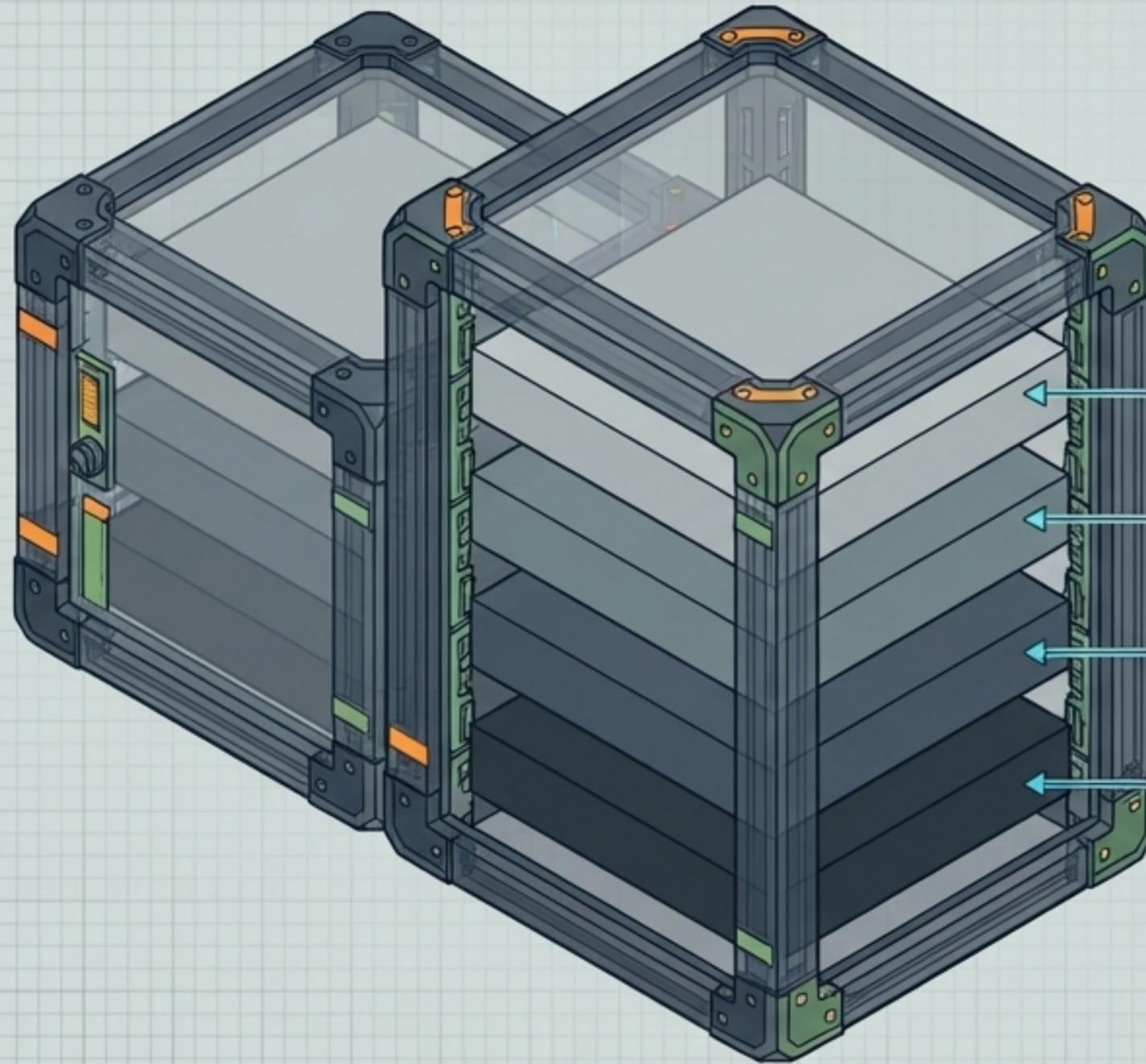
Secure Pelican-style hard case with tamper-evident DeReticular/Provada seals.

NotebookLM
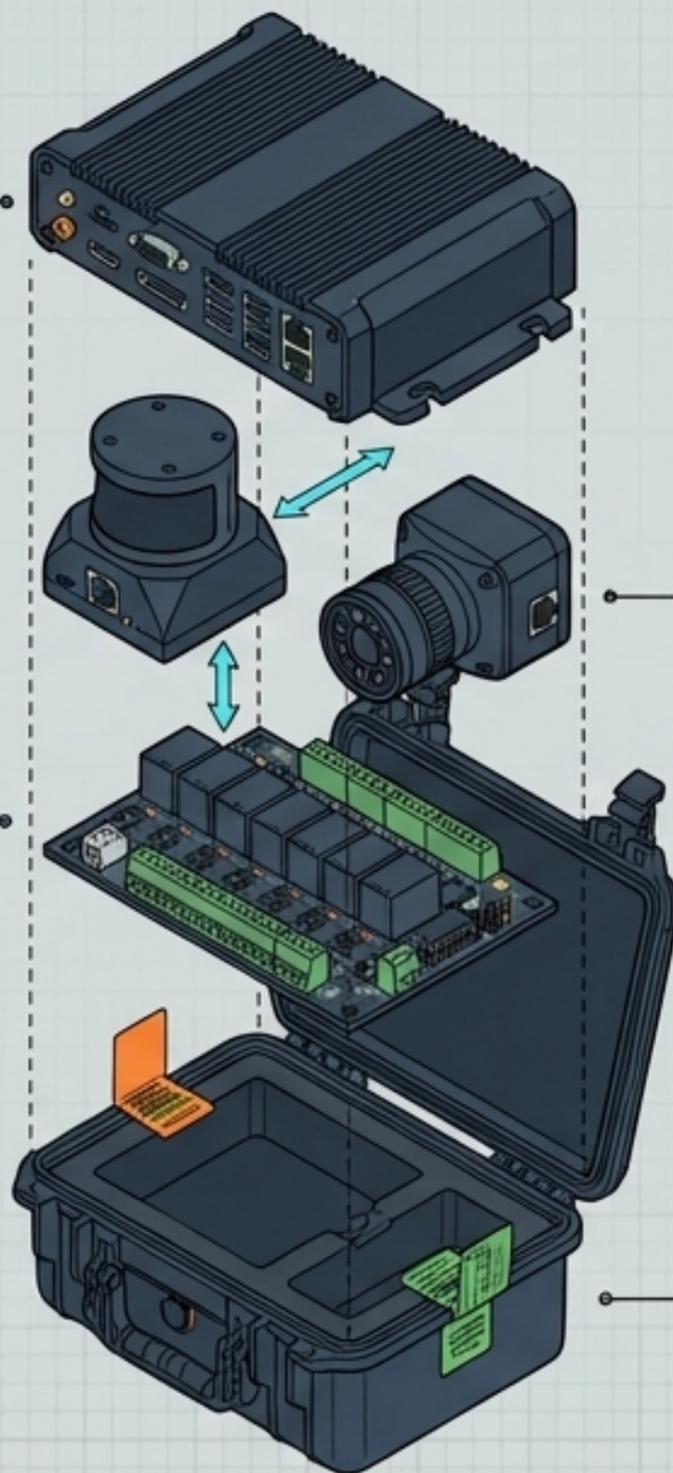
THE CORE SOFTWARE & CRYPTOGRAPHY STACK

VAULT WARDEN IMAGE

AI core running YOLOv8-spectral-custom and pointpillars-lidar-3d (provada/vault-warden:citadel-edition)

OPENCLAW FOREMAN IMAGE

Node-RED flows translating AI alerts to physical GPIO relay actions (dereticular/openclaw-industrial:security)
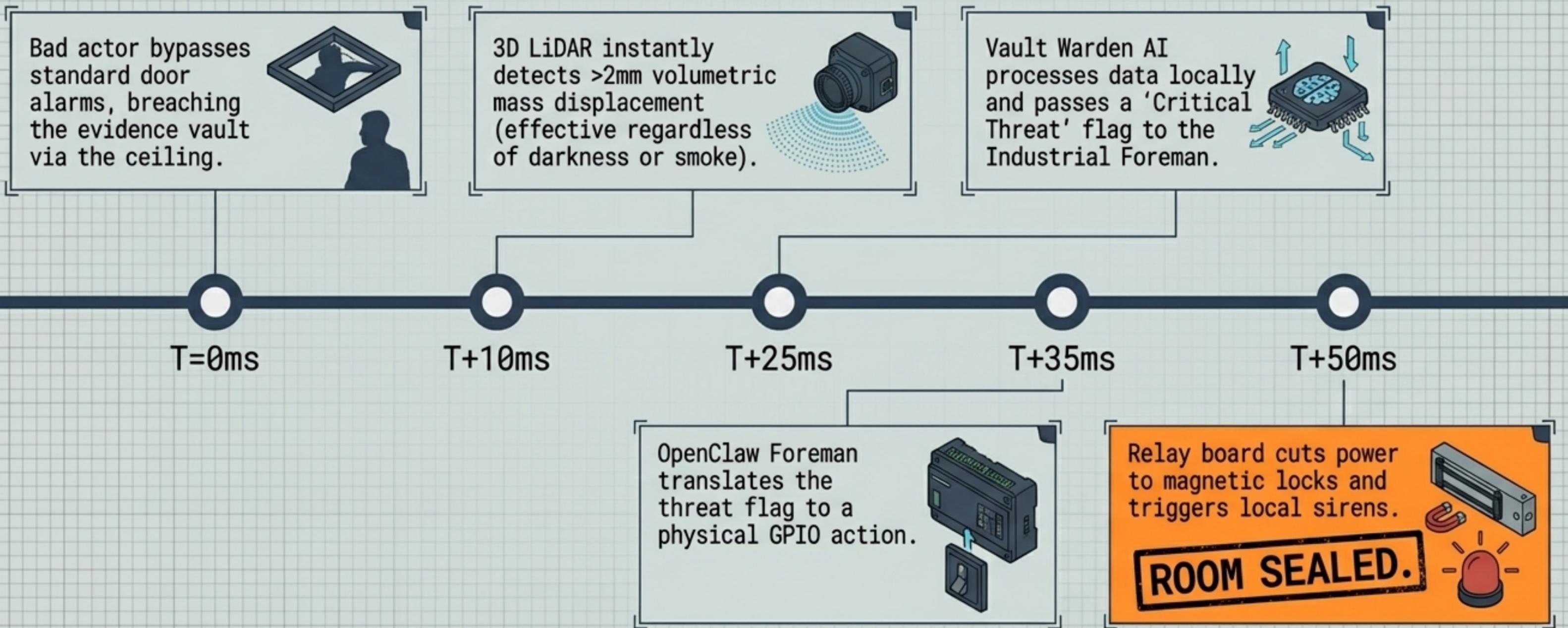
LOCAL DASHBOARD ENGINE

Highly secure Web GUI for live feeds, zone arming, and intrusion logs over the local municipal mesh network.

LICENSING CORE

Citadel Cryptographic Key (SHA-256 hash) paired with an Air-Gap Entitlement for infinite localized operation.
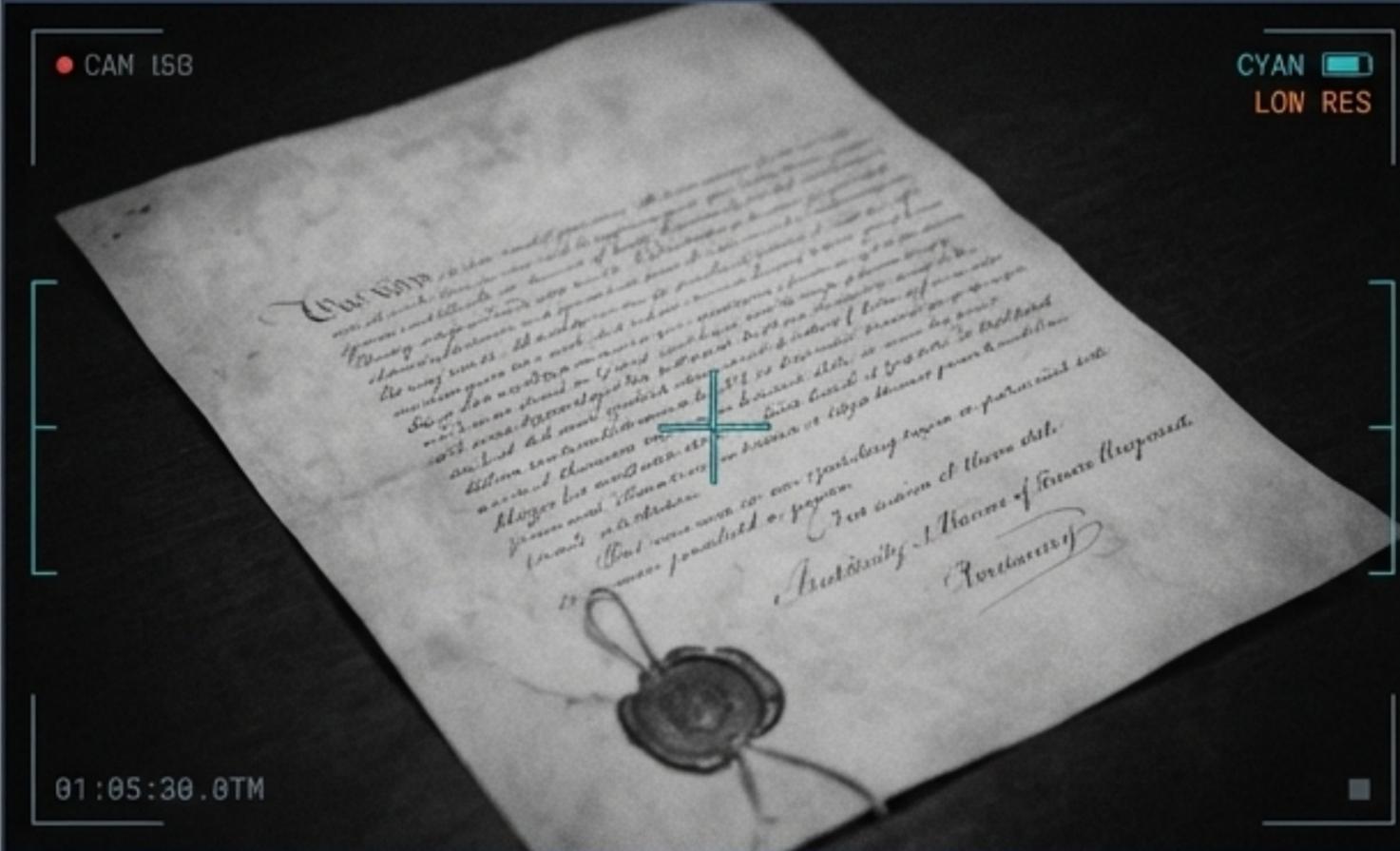
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THE 50-MILLISECOND ACTION TIMELINE

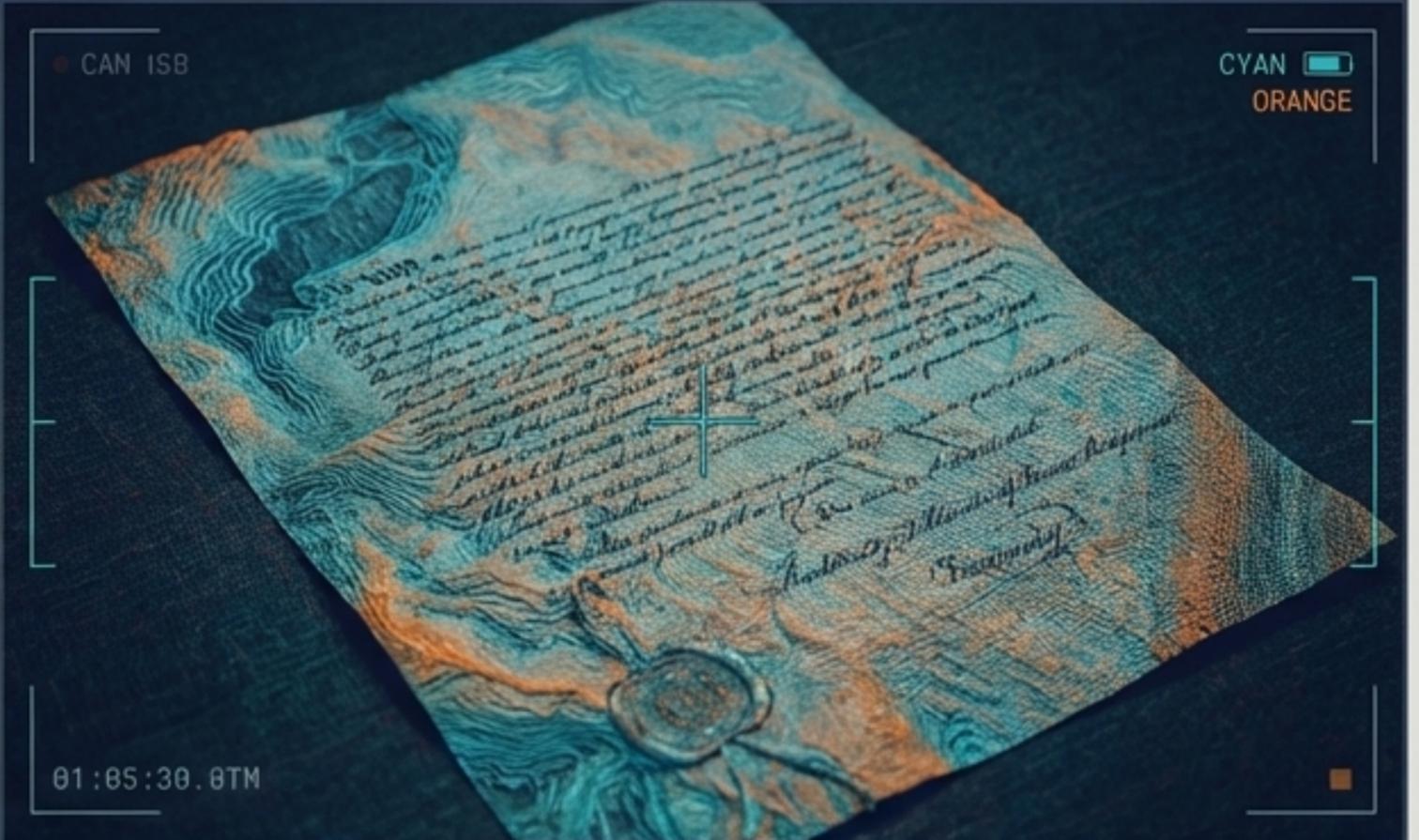## SEQUENCE OF EVENTS FROM BREACH DETECTION TO PHYSICAL LOCKDOWN

Bad actor bypasses standard door alarms, breaching the evidence vault via the ceiling.

3D LiDAR instantly detects >2mm volumetric mass displacement (effective regardless of darkness or smoke).

Vault Warden AI processes data locally and passes a 'Critical Threat' flag to the Industrial Foreman.

T=0ms — **T+10ms** — **T+25ms** — **T+35ms** — **T+50ms**

OpenClaw Foreman translates the threat flag to a physical GPIO action.

Relay board cuts power to magnetic locks and triggers local sirens.

ROOM SEALED.

NotebookLM

ADVANCED CAPABILITY: SPECTRAL PROVENANCE

CCTV FEED [STANDARD]

● CAM 15B

CYAN ▭
LOW RES

01:05:30.0TM

CAN 04 // ARCHIVE VIEW // LOW RES

MULTISPECTRAL PROVENANCE MAP [ENHANCED]

● CAN 15B

CYAN ▭
ORANGE

01:05:30.0TM

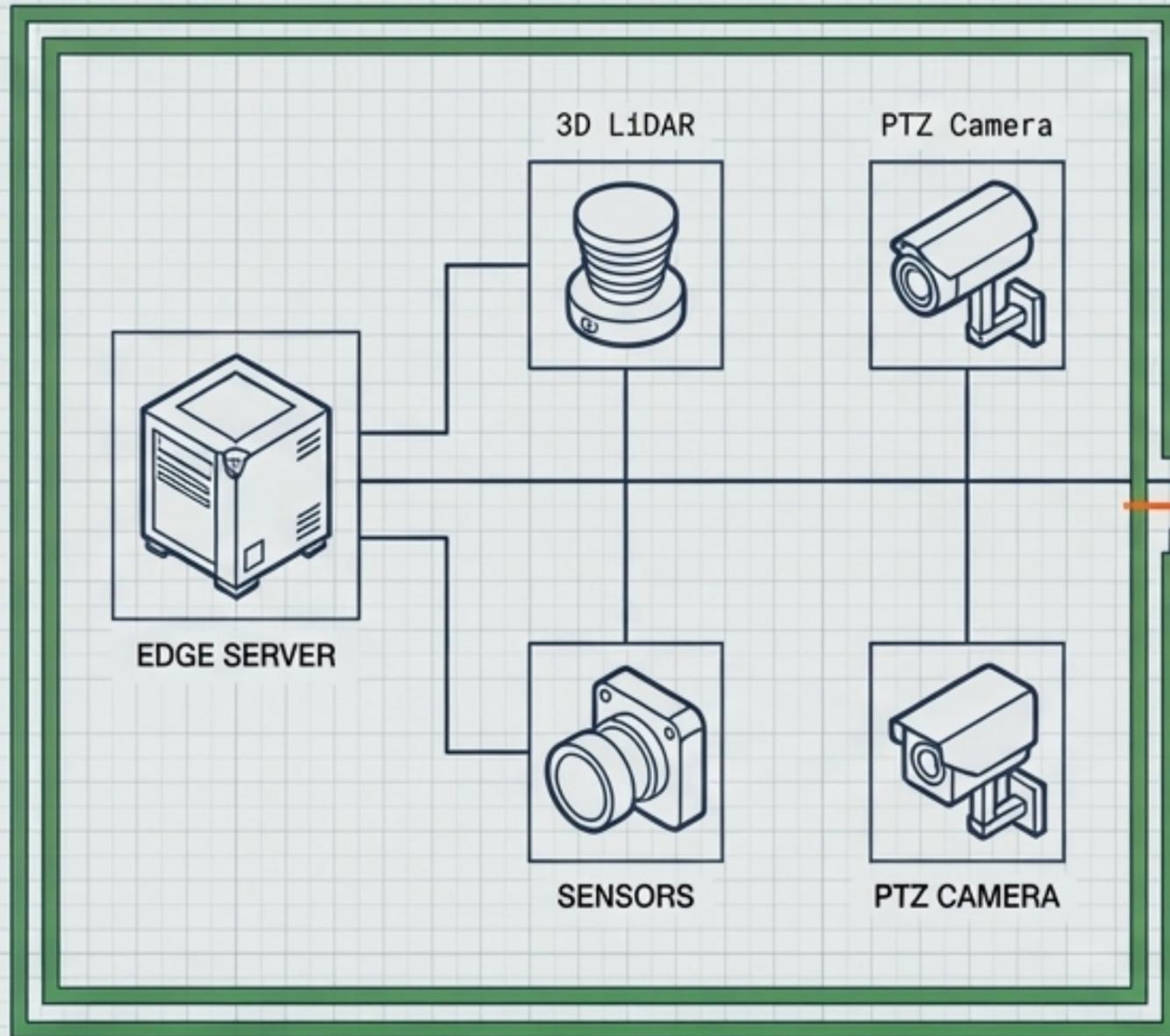SPECTRAL PEAK: 450nm (CYAN) / 620nm (ORANGE) // PIGMENT ID: IRON GALL INK // WEAVE DENSITY: 120/cm

ARCHIVE DEFENSE

The integrated multispectral PTZ camera is programmed to periodically zoom in and inspect high-value civic assets or seized art at a microscopic level.

PROVENANCE VERIFICATION

Continuously verifies the specific pigment and material weave patterns of historical documents and evidence, ensuring they have not been swapped with clever forgeries.
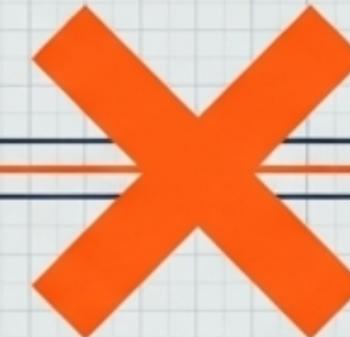
NotebookLM

ABSOLUTE DATA SOVEREIGNTY: 100% AIR-GAPPED OPERATION

ISLAND MODE COMPLIANCE

Zero outbound internet connection required. The Air-Gap Entitlement license bypass allows infinite operation without external server pinging.

PHYSICALLY SEVERED CONNECTION

EXTERNAL CLOUD LEDGER

SECURE AUDIT TRAIL

All video footage, LiDAR telemetry, and access logs are written and encrypted directly to the Sentry Pro's local 1TB NVMe drive. Subpoenaed evidence is retrieved physically—never downloaded from a vulnerable cloud.

LOCAL MUNICIPAL VLAN

- 3D LiDAR
- PTZ Camera
- EDGE SERVER
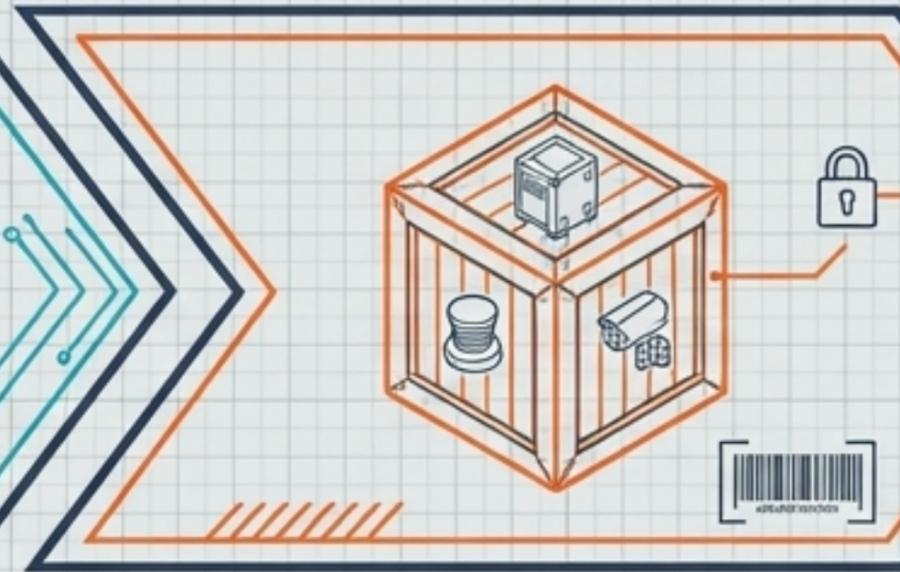- SENSORS
- PTZ CAMERA

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HYBRID FULFILLMENT WORKFLOW

PHASE 1: DIGITAL PROVISIONING

Automated: License keys minted via Air-Gap Entitlement. Customer IT email is whitelisted to access secure Docker registries.
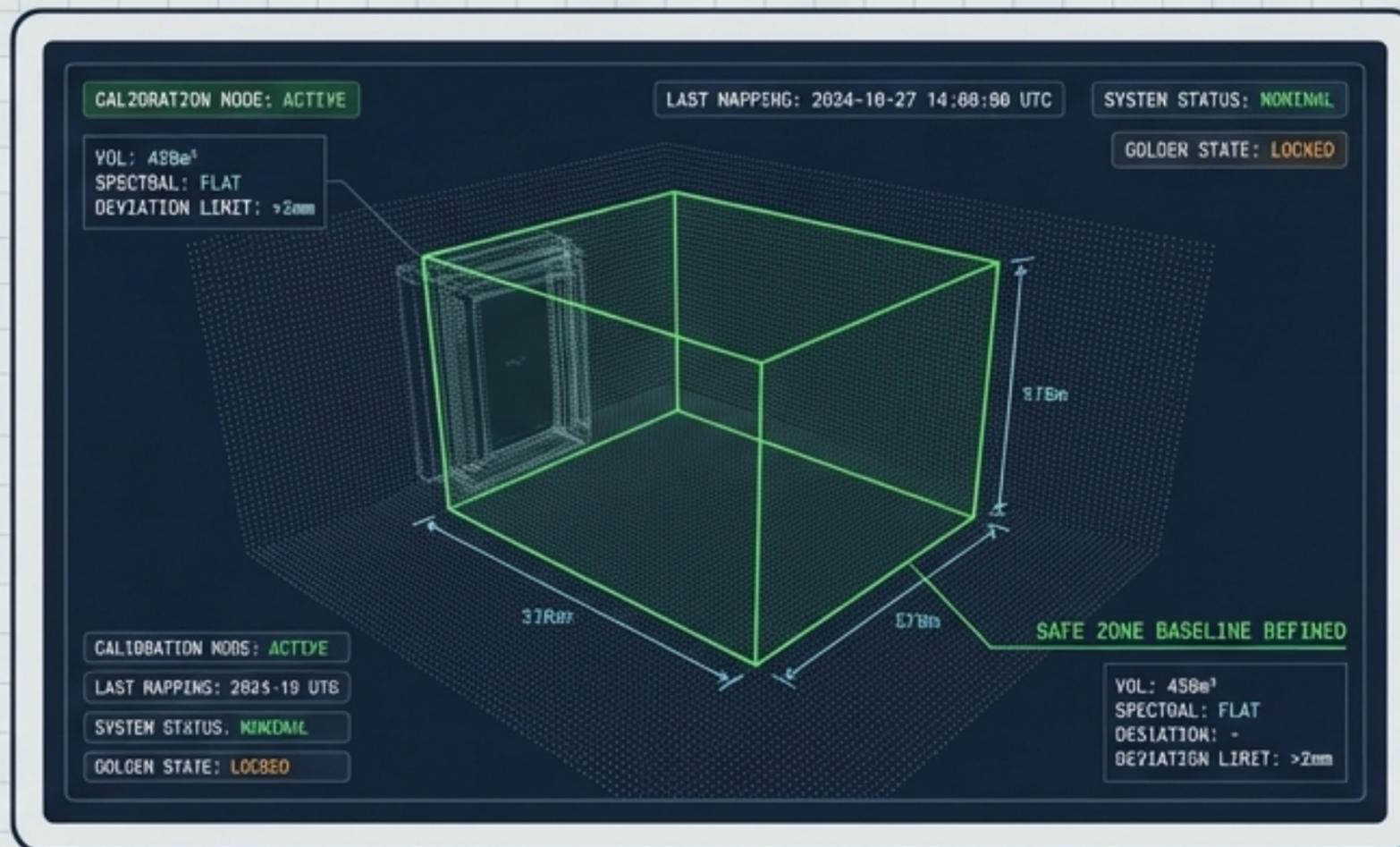
PHASE 2: PHYSICAL DISPATCH

Provada Labs: Zero-trust calibration binds specific LiDAR/PTZ MAC addresses to the specific Sentry Pro node. Packed and shipped via secure courier (signature required).

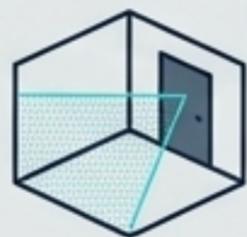## PHASE 3: INSTALLATION & CALIBRATION
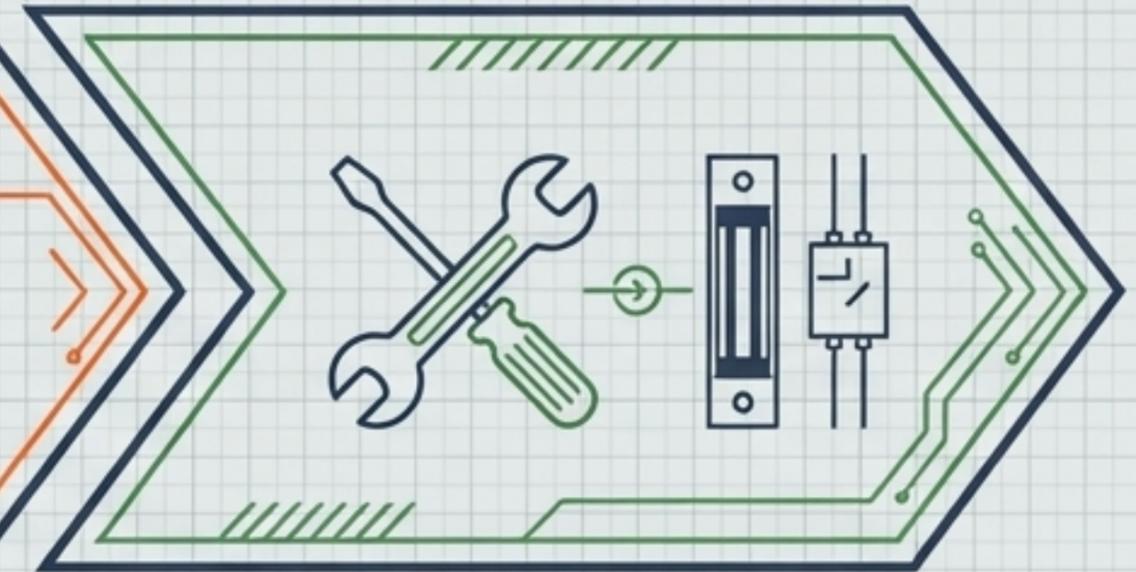
User Side: System connected to air-gapped VLAN. Hardware mounted. Door relays wired to magnetic locks.

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DEFINING THE BASELINE: THE "GOLDEN STATE" CALIBRATION

CALIBRATION NODE: ACTIVE
LAST MAPPING: 2024-10-27 14:08:00 UTC
SYSTEM STATUS: NOMINAL
GOLDEN STATE: LOCKED

VOL: 458e³
SPECTRAL: FLAT
DEVIATION LIMIT: >2mm

SAFE ZONE BASELINE DEFINED

CALIBRATION NODE: ACTIVE
LAST MAPPING: 2024-10 UTC
SYSTEM STATUS: NOMINAL
GOLDEN STATE: LOCKED

VOL: 458e³
SPECTRAL: FLAT
DEVIATION: -
DEVIATION LIMIT: >2mm

STEP 1: MAPPING

Municipal IT maps the "Safe Zone" via the local dashboard, establishing the baseline volumetric and spectral state of the room. Data is captured and stored locally.

STEP 2: ARMING

Once mapped, the system is set to "Active Duty." Baseline parameters are locked and encrypted.

STEP 3: ENFORCING

The Industrial Foreman agent assumes total control of door relays, ready to trigger countermeasures upon any >2mm deviation from this established Golden State.

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DIAGNOSTIC RISK & EDGE-CASE MITIGATION

THREAT / RISK EVENT

ENGINEERED MITIGATION

| THREAT / RISK EVENT	ENGINEERED MITIGATION
⚠ TARGETED POWER CUT Thieves cut building power before entry.	**NOMAD FAILOVER** Sentry Pro runs on 12V DC. Tied to a local UPS, it operates for days. Optional Nomad LTE failover blasts alerts if the local LAN drops.
⚠ FIRE CODE VIOLATION Mag-locks trap personnel during emergency.	**LIFE SAFETY LOGIC** Relays are explicitly wired in a 'Fail-Safe' configuration tied directly to the building's legacy fire alarm panel.
⚠ JANITORIAL TRIGGER Accidental lockdown by cleaning staff.	**SOVEREIGN MAINTENANCE KEY** Authorized staff insert a cryptographic USB hardware key into the node to temporarily enforce "Maintenance Mode".

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SYSTEM REQUIREMENTS & INFRASTRUCTURE PREPARATION

DEPLOYMENT READINESS CHECKLIST // REF: SEC-ARCH-013

[X] NETWORK ARCHITECTURE

A dedicated, isolated local network (VLAN) for the Provada sensors and local dashboard. This network must be air-gapped from corporate data and public internet access.

Ensure DHCP server is configured for static IP addressing of all nodes.

SECURE VLAN
✗ INTERNET
✗ CORPORATE DATA
PROVADA SEKSOR NODES
LOCAL DASHBOARD
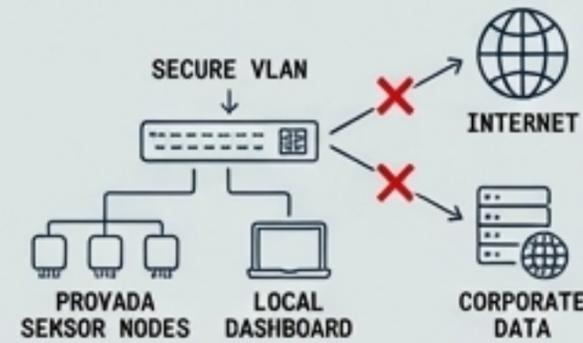
[X] DOOR HARDWARE

Standard 12V/24V electronic door strikes or magnetic locks.

Note: Heavy door hardware is not included in the Citadel bundle.

Ensure compatibility with existing voltage supply and current draw.

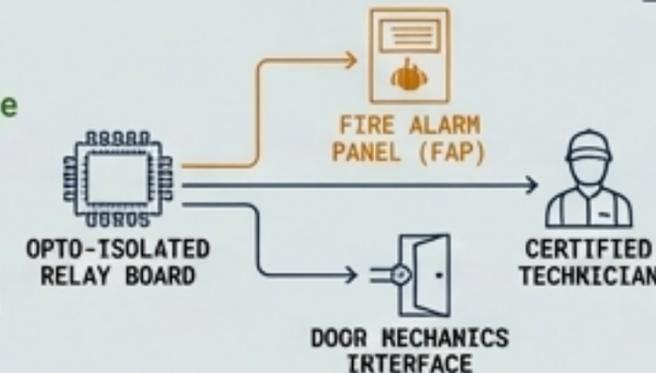ELECTRONIC STRIKE (12V/24V)
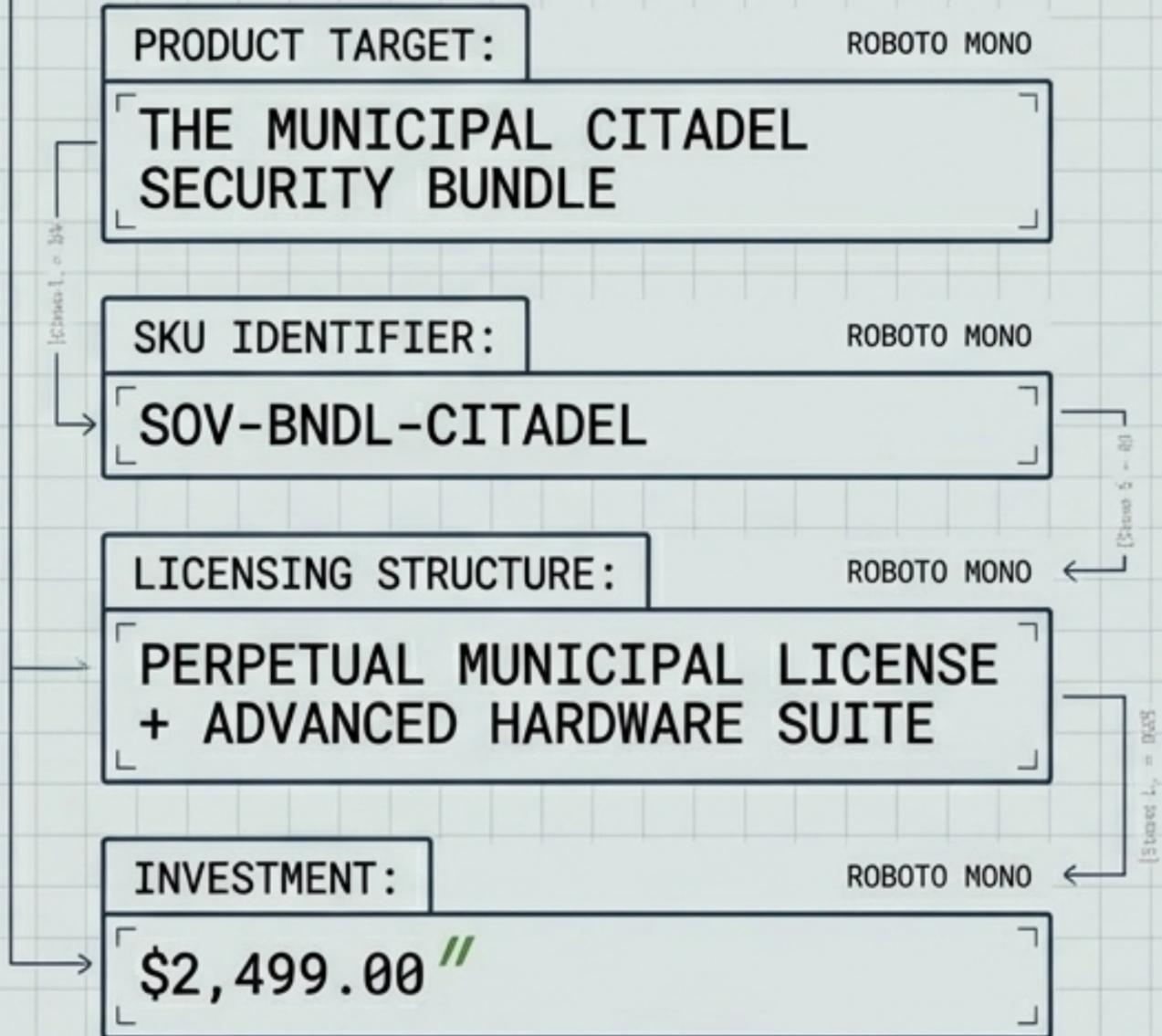MAGNETIC LOCS (12V/24V)
PSU (12V/24V)
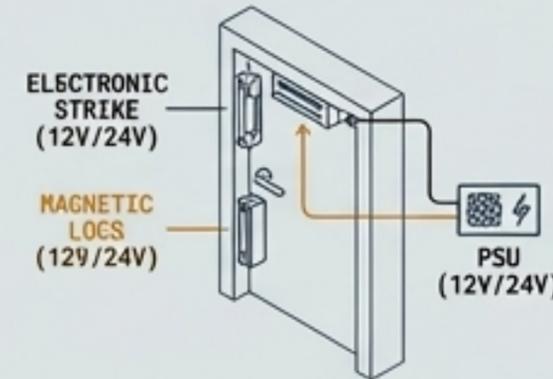
[X] CERTIFIED INSTALLATION

Deployment requires a certified low-voltage technician or municipal IT administrator to properly interface the Opto-Isolated Relay Board with local fire-codes and door mechanics.

Compliance with NFPA 80 and local building codes is mandatory.

OPTO-ISOLATED RELAY BOARD
FIRE ALARM PANEL (FAP)
DOOR MECHANICS IRTERFACE
CERTIFIED TECHNICIAN

DEFEND YOUR COMMUNITY'S ASSETS

PRODUCT SPECIFICATION

PRODUCT TARGET: ROBOTO MONO

THE MUNICIPAL CITADEL
SECURITY BUNDLE

SKU IDENTIFIER: ROBOTO MONO

SOV-BNDL-CITADEL

LICENSING STRUCTURE: ROBOTO MONO

PERPETUAL MUNICIPAL LICENSE
+ ADVANCED HARDWARE SUITE

INVESTMENT: ROBOTO MONO

$2,499.00

PROCUREMENT NEXT STEPS

TRIGGER PURCHASE VIA WOOCOMMERCE
UTILIZING MUNICIPAL P.O. OR STANDARD
CHECKOUT TO INITIATE AUTOMATED
PHASE 1 DIGITAL PROVISIONING.